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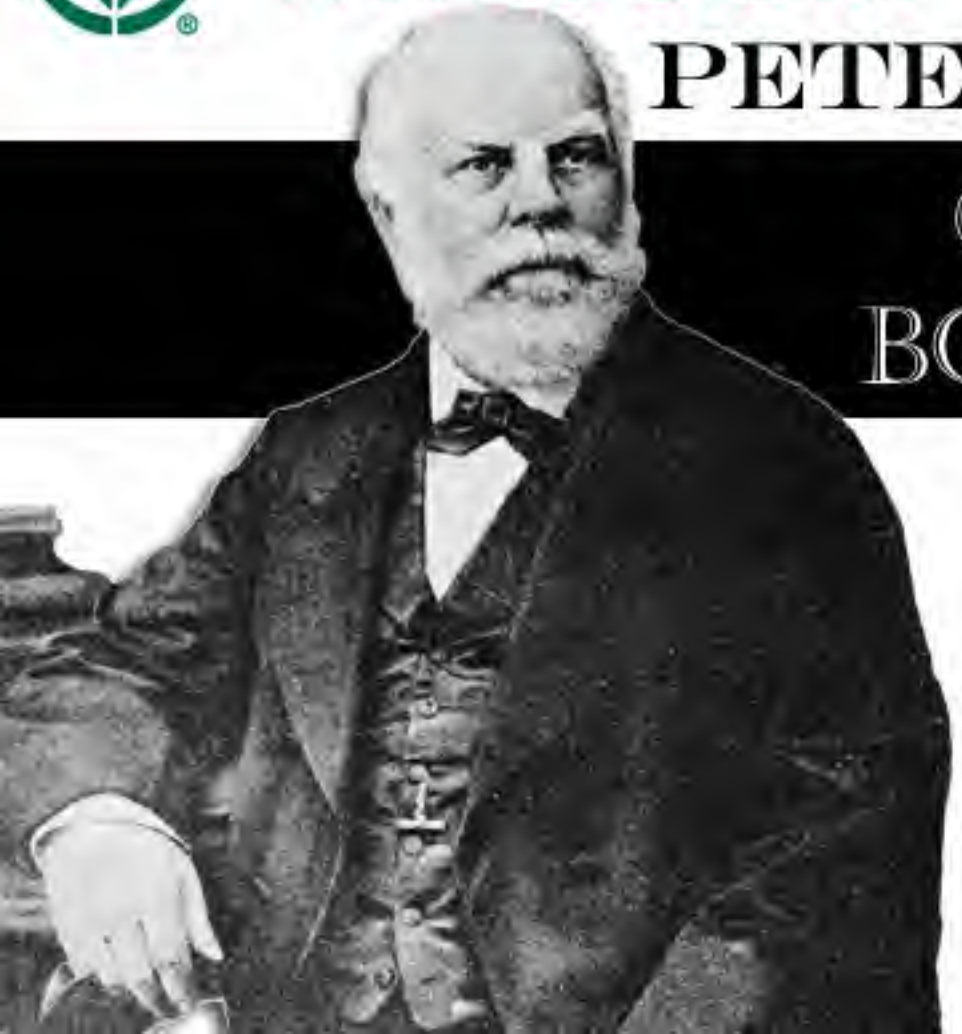

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710-741

IV. *Direction of Winds and number of Thunderstorms in* '61 & '62.

1861.	E.	N.	N.E.	S.W.	N.W.	S.	W.	S.E.	Prevailing Winds.	Thunder-storms.
January.....	11	3	12	22	38	18	28	61	S.E.	 0
February	4	2	2	35	24	19	41	60	S.E.	 2
March.....	12	11	10	23	30	19	42	40	W. & S.E. ...	 3
April	16	10	9	26	21	35	34	26	S. & W.	 2
May	26	10	23	21	8	13	49	35	W. & S.E. ...	 5
June	12	21	22	20	25	26	8	41	S.E.	 7
July	3	31	14	21	26	46	15	29	S.	 3
August	18	24	58	17	11	18	3	37	N.E.	 5
September...	6	14	18	26	30	13	21	52	S.E. & N.W.	 3
October	12	9	5	21	30	33	30	46	S.E. & S.....	 1
November....	7	15	8	22	27	20	36	44	S.E. & W....	 1
December ...	9	19	9	25	23	33	17	51	S.E. & S.....	 0
	136	169	190	279	293	293	324	522	S.E.	 32

1862.	E.	S.W.	N.	N.E.	W.	S.	N.W.	S.E.	Prevailing Winds.	Th. st's.
Jan.....	19	6	19	23	29	3	38	51	S.E.	1
Feb.....	14	9	18	16	22	7	39	43	S.E. & N.W.	0
March ...	9	14	3	15	59	10	34	43	W., S.E. & N.W....	4
April	12	13	18	31	18	11	34	47	S.E., N.W. & N.E..	6
May.....	12	18	14	38	18	30	14	44	S.E. & N.E.	5
June	3	29	24	16	8	36	26	23	S., S.W., N.W., N. & S.E.....	6
July.....	5	25	17	7	2	24	31	77	S.E.	10
August..	6	16	16	45	5	22	28	48	S.E. & N.E.....	7

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GEORGE E

Additional Remarks on Atmospheric Electricity.

By A. Wislizenus, M.D.

The delay in the publication of this volume enables me to add to my observations of atmospheric electricity in 1861, the result of my observations in 1862. The latter observations have been made in the same manner and by means of the same fine glass thread, which, after many thousand torsions, proves as good as ever. I present herewith in tabular form the general result of my observations in 1861 and 1862.

I. *Monthly mean of Positive Atmospheric Electricity in* 1861 *and* 1862, *at St. Louis, Mo., based upon daily observations at* 6, 9, 12, 3, 6 *and* 9 *o'clock, from morning till night.*

	Jan.	Feb.	Mar.	Ap'l.	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean of Year.
1861*.	16.5	12.1	9.8	8.8	7.8	4.0	3.7	3.4	3.0	7.1	10.0	14.3	8.4
1862...	12.1	16.0	9.4	10.6	7.5	3.0	2.2	2.3	3.0	7.7	12.6	13.9	8.4

* This table of 1861 differs in some decimals from that published on page 66 a
gram No. 1. Having discovered some errors, I calculated all my observations c
and give now the present as the corrected table.

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IV. *Direction of Winds and number of Thunderstorms in* '61 & '62.

1861.	E.	N.	N.E.	S.W.	N.W.	S.	W.	S.E.	Prevailing Winds.	Thunder-storms.
January.....	11	3	12	22	38	18	28	61	S.E.	 0
February	4	2	2	35	24	19	41	60	S.E.	 2
March.....	12	11	10	23	30	19	42	40	W. & S.E. ...	 3
April	16	10	9	26	21	35	34	26	S. & W.....	 2
May	26	10	23	21	8	13	49	35	W. & S.E. ...	 5
June	12	21	22	20	25	26	8	41	S.E.	 7
July	3	31	14	21	26	46	15	29	S.	 3
August	18	24	58	17	11	18	3	37	N.E.	 5
September...	6	14	18	26	30	13	21	52	S.E. & N.W.	 3
October	12	9	5	21	30	33	30	46	S.E. & S.....	 1
November....	7	15	8	22	27	20	36	44	S.E. & W....	 1
December ...	9	19	9	25	23	33	17	51	S.E. & S.....	 0
	136	169	190	279	293	293	324	522	S.E.	 32

1862.	E.	S.W.	N.	N.E.	W.	S.	N.W.	S.E.	Prevailing Winds.	Th. st's.
Jan.....	19	6	19	23	29	3	38	51	S.E.	1
Feb.....	14	9	18	16	22	7	39	43	S.E. & N.W.	0
March ...	9	14	3	15	59	10	34	43	W., S.E. & N.W.	4
April	12	13	18	31	18	11	34	47	S.E., N.W. & N.E..	6
May.....	12	18	14	38	18	30	14	44	S.E. & N.E.	5
June	3	29	24	16	8	36	26	23	S., S.W., N.W., N. & S.E....	6
July.....	5	25	17	7	2	24	31	77	S.E.	
August..	6	16	16	45	5	22	28	48	S.E. & N.E.	

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Additional Remarks on Atmospheric Electricity.

By A. Wislizenus, M.D.

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	Jan.	Feb.	Mar.	Ap'l.	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean of Year.
1861*.	16.5	12.1	9.8	8.8	7.8	4,0	3.7	3.4	3.0	7.1	10.0	14.3	8.4
1862...	12.1	16.0	9.4	10.6	7.5	3.0	2.2	2.3	3.0	7.7	12.6	13.9	8.4

* This table of 1861 differs in some decimals from that published on page 66 and in Diagram No. 1. Having discovered some errors, I calculated all my observations once more,

1862...	85.3	78.9	70.8	67.0	57.3	67.0	66.8	64.3	74.2	67.2	69.5	74.6	69.8

III. *Yearly mean of Positive Electricity of Temperature, and of Relative Humidity of the Atmosphere, at the hours of* 6, 9, 12, 3, 6 *and* 9, *from morning till night, based upon daily observations at these hours through the years* 1861 *and* 1862, *at St. Louis, Mo.*

ELECTRICITY.

	At 6 A.M.	At 9 A.M.	At 12 M.	At 3 P.M.	At 6 P.M.	At 9 P.M.
1861	8.6	10.0	9.2	7.9	8.7	6.9
1862	8.9	10.0	9.1	7.3	8.1	6.8

	Jan.	Feb.	Mar.	Ap'l.	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean of Year.
1861*	16.5	12.1	9.8	8.8	7.8	4.0	3.7	3.4	3.0	7.1	10.0	14.3	8.4
1862	12.1	16.0	9.4	10.6	7.5	3.0	2.2	2.3	3.0	7.7	12.6	13.9	

* This table of 1861 differs in some decimals from that published on page 66 and in Diagram No. 1. Having discovered some errors, I calculated all my observations once more, and give now the present as the corrected table.

	Jan.	Feb.	Mar.	Ap'l.	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean of Year.
1861	32.2	40.4	44.8	58.1	64.1	76.9	77.5	78.6	69.1	57.9	46.0	39.7	57.1°F.
1862	28.9	30.2	43.2	55.0	69.7	75.1	81.2	80.7	72.1	57.3	42.6	41.3	56.4°F.

RELATIVE HUMIDITY.

	Jan.	Feb.	Mar.	Ap'l.	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean of Year.
1861	72.2	63.3	64.5	61.5	66.3	70.8	66.3	69.6	77.3	76.6	69.0	74.3	69.5
1862	85.3	73.9	70.8	67.0	57.3	67.0	66.8	64.3	74.2	67.2	69.5	74.6	69.8

III. *Yearly mean of Positive Electricity of Temperature, and of Relative Humidity of the Atmosphere, at the hours of* 6, 9, 12, 3, 6 *and* 9, *from morning till night, based upon daily observations at these hours through the years* 1861 *and* 1862, *at St. Louis, Mo.*

ELECTRICITY.

	At 6 A.M.	At 9 A.M.	At 12 M.	At 3 P.M.	At 6 P.M.	At 9 P.M.
1861	8.6	10.0	9.2	7.9	8.7	6.9
1862	8.9	10.0	9.1	7.3	8.1	6.8

TEMPERATURE.

1861	48.9° F.	54.9	61.6	63.6	59.3	54.3
1862	48.9	55.0	60.9	62.3	58.0	53.6

RELATIVE HUMIDITY.

1861	86.4	71.3	60.3	57.2	65.1	77.3
1862	85.3	70.6	60.0	57.5	67.6	78.0

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	112	191	211	230	259	265	351			

V. *Positive or Negative Electricity in the Observations of* '61 & '62.

	Positive Electricity.		Negative Electricity.		No Electricity, or 0.		Highest Positive Electricity.	
	1861.	1862.	1861.	1862.	1861.	1862.	1861.	1862.
Jan.....	179	179	3	5		2	40°	40°
Feb.....	162	166	6	2			34	33
March ...	168	179	15	8			30	48
April	157	157	12	22	1	1	33	52
May.....	171	180	17	5	1	3	25	32
June	162	143	5	2	8	20	16	21
July.....	183	153	3	8	1	24	14	11
August..	176	143	5	4	6	40	15	19
Sept.....	169	117	1	1	10	61	18	23
Oct.....	162	143	4	3	20	41	33	35
Nov.....	172	157	2	7	6	16	42	42
Dec.....	175	166	5	0	6	17	37	35
	2046	1883	78	67	59	225	42°	52°

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S. xiphioides

Oct 17 1865

cum bulbo nodoso genuino = Hb. Torr sub sched:

S. polycephalum &
N.W. Coast, Douglas
from Hooker

x 60

x 10

not quite ripe

sepals all mucronate
inner ones shorter & more
obtuse than outer ones

Centris compressa

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Juncus x-ish

sub nom J. scirpoides

" Cascade Mts ~~Col Colo Mts~~

Oct 21 1865

Col 49°

Dr Lyall 1860

Aug.

Aug 9

18 high.

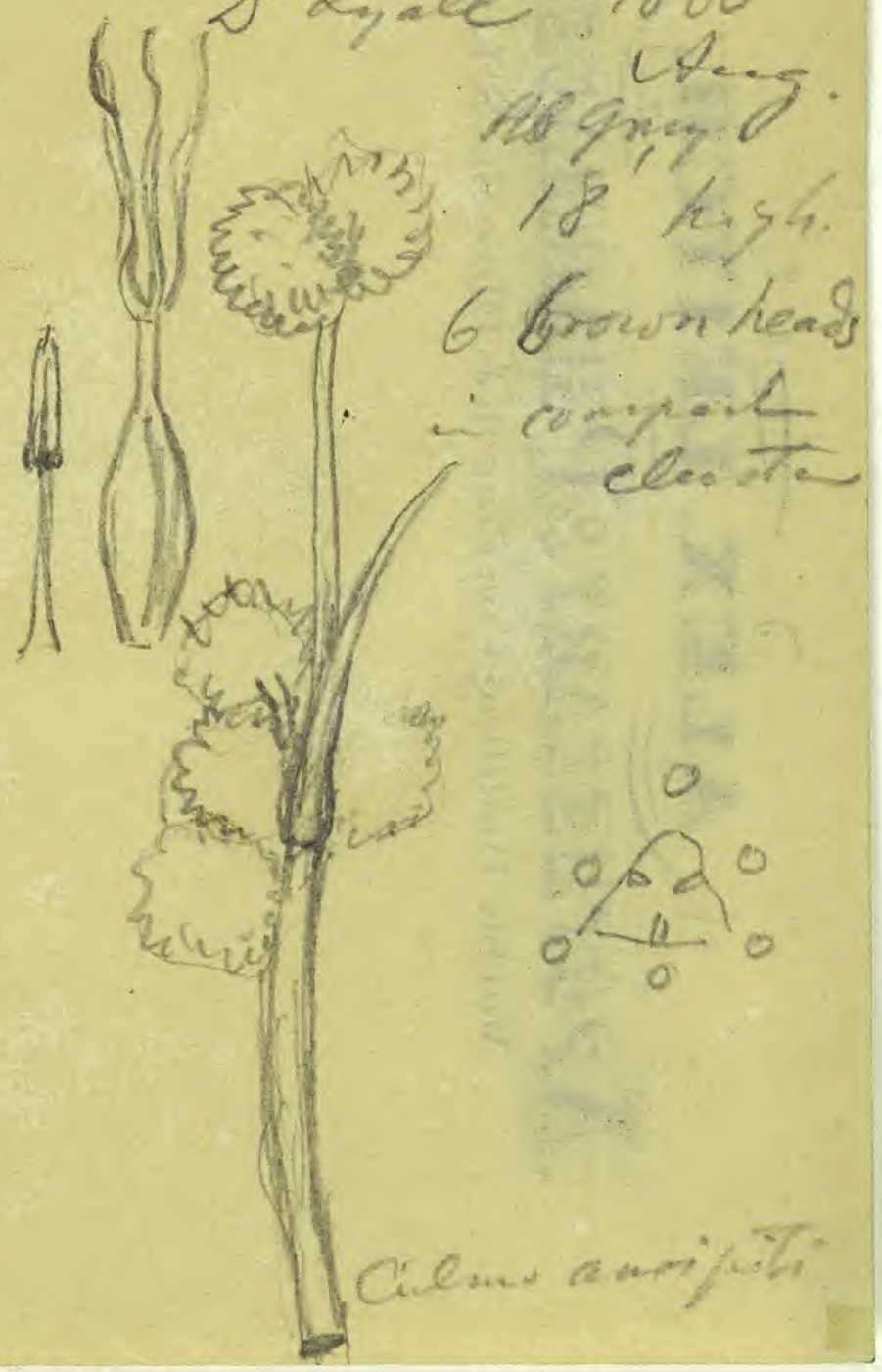
6 brown heads

in corymb

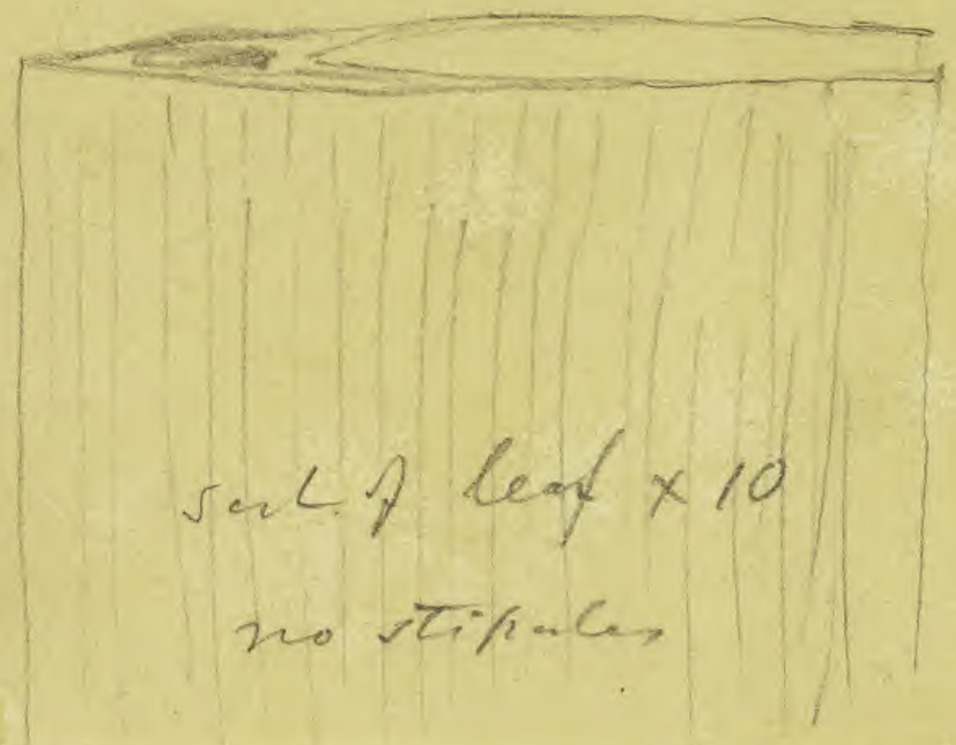
clustered

×10

very unripe



Culms ancipiti



sect of leaf ×10

no stipules

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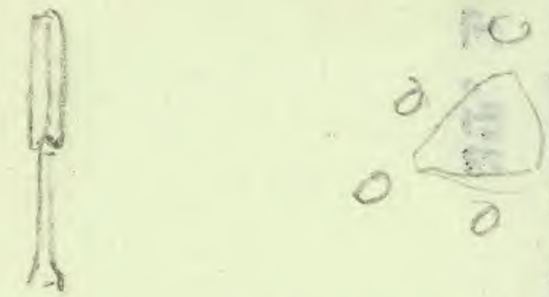
9. Tamayo xiphoides, n. sp. March 22 1866

Nevada, Anderson (C. L.) 1865



Sepals erect Lat. 3 nervia
Petals connate

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" J. xiphioides von Haworthy Feb. 25 1862

" J. Rostkoviana "

Ulnaceæ Eschscholtz.

Hrb Hort Petrop. N° 15

near plicatoreplicata, but stamens!

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" Juncus polycephalus α "

J. xyphioides ??

Octob 4 1865

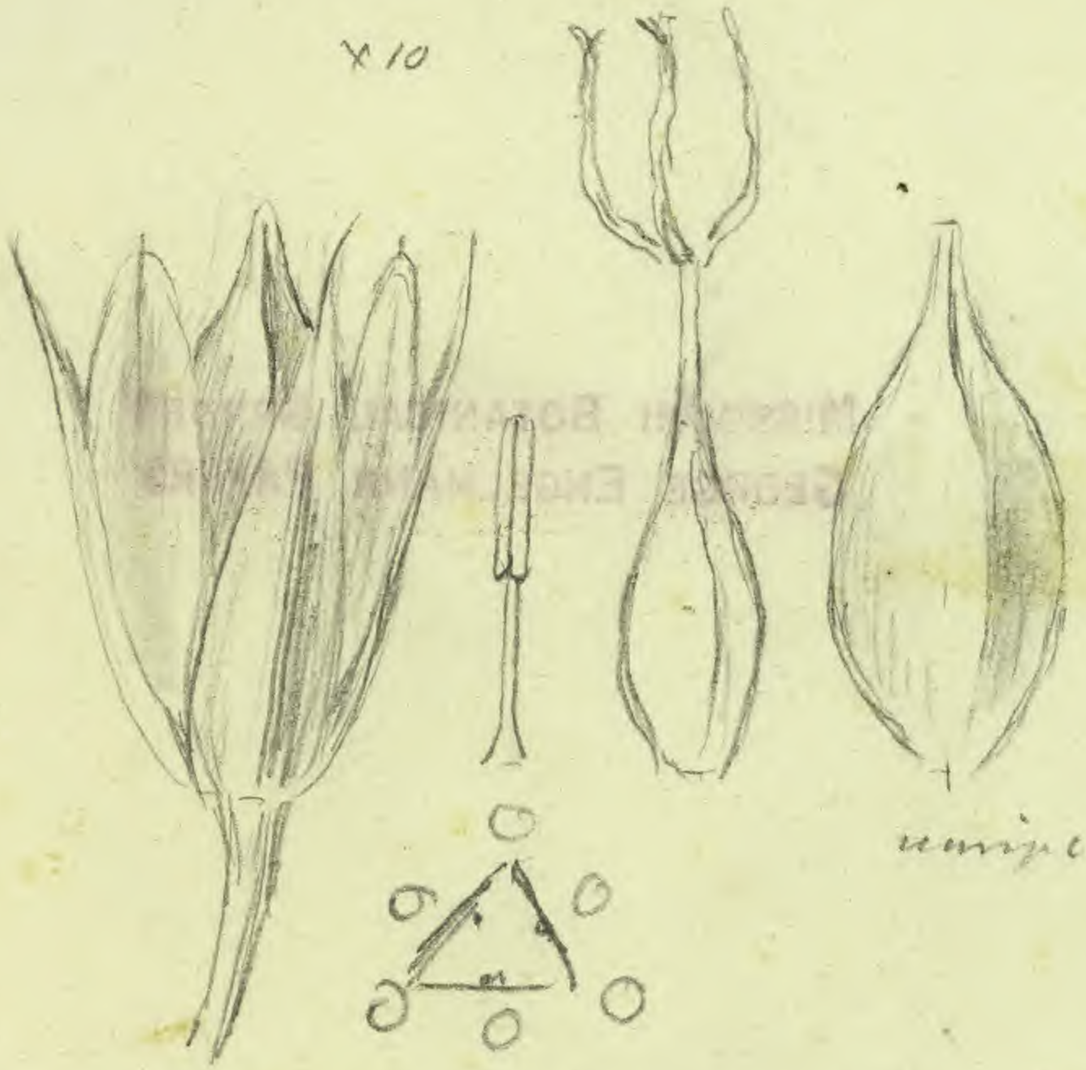
North West Coast, Douglas

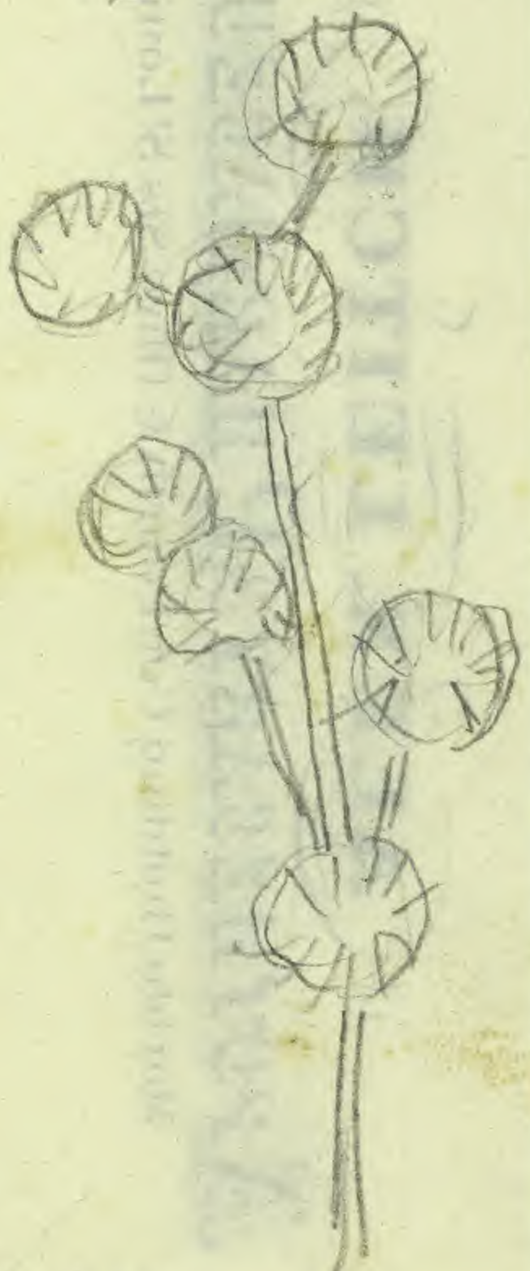
mixed with nodosus (?)

ex Hook.

x 60

x 10

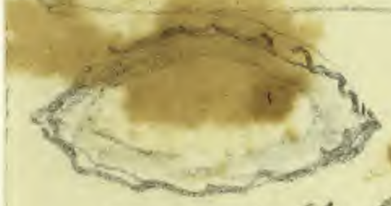




unripe

Markings indistinct

(culm compressed)



x 10

fol. fistulos. compress nodos

unripe

Capitula 10 mm diam. 18–35 fl.

sepala exteriora lanceolata acuminata

capsula ovata acuminata (cuspidata) apice

s. interiora obtusa mucronata, paulo breviora

medio fusca (rarius apice marginata mucronata)

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interrupted descent and ascent took place from January to December, we find in 1862 some interruptions in the steps of that ladder. The electricity in February, 1862, is about four degrees higher than that of January, April somewhat higher than March, and July is the lowest instead of September in 1861. These trifling irregularities may be accounted for by differences in temperature and relative humidity, and by a greater number of thunderstorms in 1862. January of 1862, for instance, was so unusually rainy, that its relative humidity too was unusually high, diminishing thus electricity. But the general features of distribution of electricity throughout the year are apparent in both years, and we may in that respect divide the twelve months of each year into two or three groups. Computing the months which give the highest electricity and those which give the lowest in each year, we find that in both years the months of January, February, March, April, November and December exhibit the highest, and the months of May, June, July, August, September and October the lowest electricity. The first group gives

The aggregate monthly mean of	71.5	degrees of	electricity	in 1861
and	74.6	"	"	" 1862
While the second group gives	29.0	"	"	" 1861
and	25.7	"	"	" 1862

The second group prevailed therefore in 1861, and the 1st

VI. The appearance of negative electricity was connected in

1861. No. times.	1862. No. times.	
30	32	with thunderstorms.
23	28	with rains without thunder and lightning.
20	4	with dry storms (without rain and without thunder and lightning).
4	3	with snow.
1	0	with fog.
78	67	

VII. *Relation of Rain and Snow to Electricity.*

Rain without thunderstorm was accompanied

	By Positive Electricity.		By Negative Electricity.		By no Electricity.	
	In 1861.	In 1862.	In 1861.	In 1862.	In 1861.	In 1862.
January.....	7	5	3	2	.....	2 .....
February	2	1	4			
March						

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Vdl 16 Chamisso

P. capitata, Unalaschka, Meyer.

Linnaea 3. 373 (1828)

flores triandri

pericarpii Cassinii subaequalibus acuminatis,

capsulam trigonam obovatam obtusam

subaequantibus

" Rudiae et Cassi pedicellum brevissimum

lanceolato — acuminata, , flores nullae

depula ejusdem brevia cuspidata, i. ter. multo

praterea non diversa

Wikstr in Act. Holm 1823. II. p. 1. (Et Kunth)

III 337

III. 337

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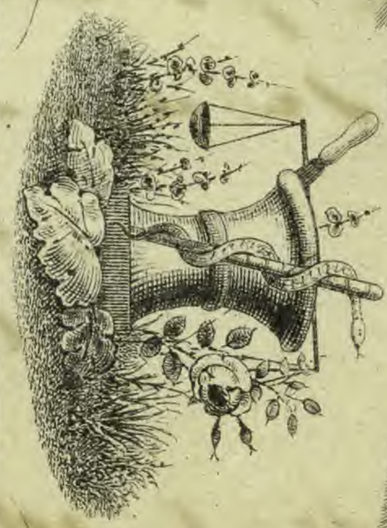
Apothecaries & Pharmaceutists,



S. W. CORNER OF TWELFTH & OLIVE STS.

ST. LOUIS.

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Lupinus caudatus

Oct 18 1865

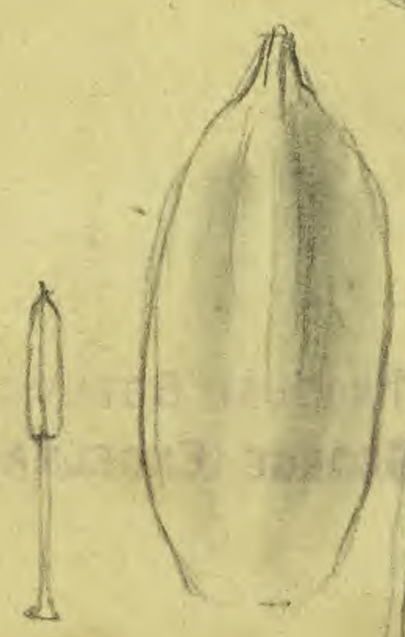
Cascade Mts, Oregon 49°

1859 Dr Lyall

~ 46 Grey

Large Specimen

x60



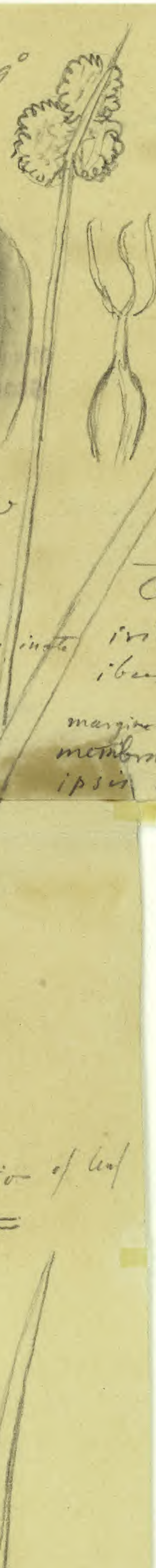
all flowers expanded are 3-androus

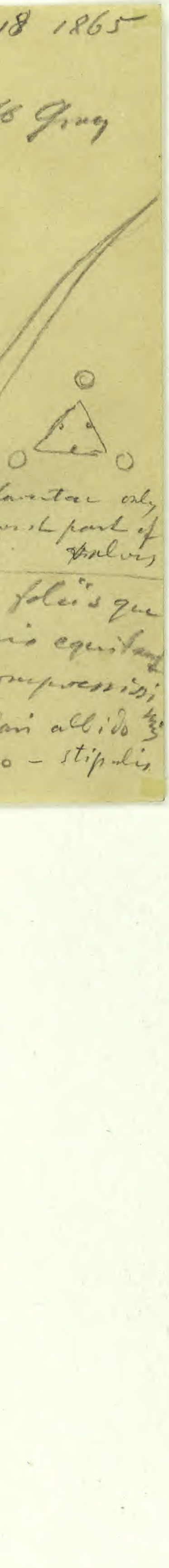
x150

all flowers expanded are 3-androus

inner sepals acute or obtusish shorter or nearly as long as the outer ones

sect of leaf at b x10

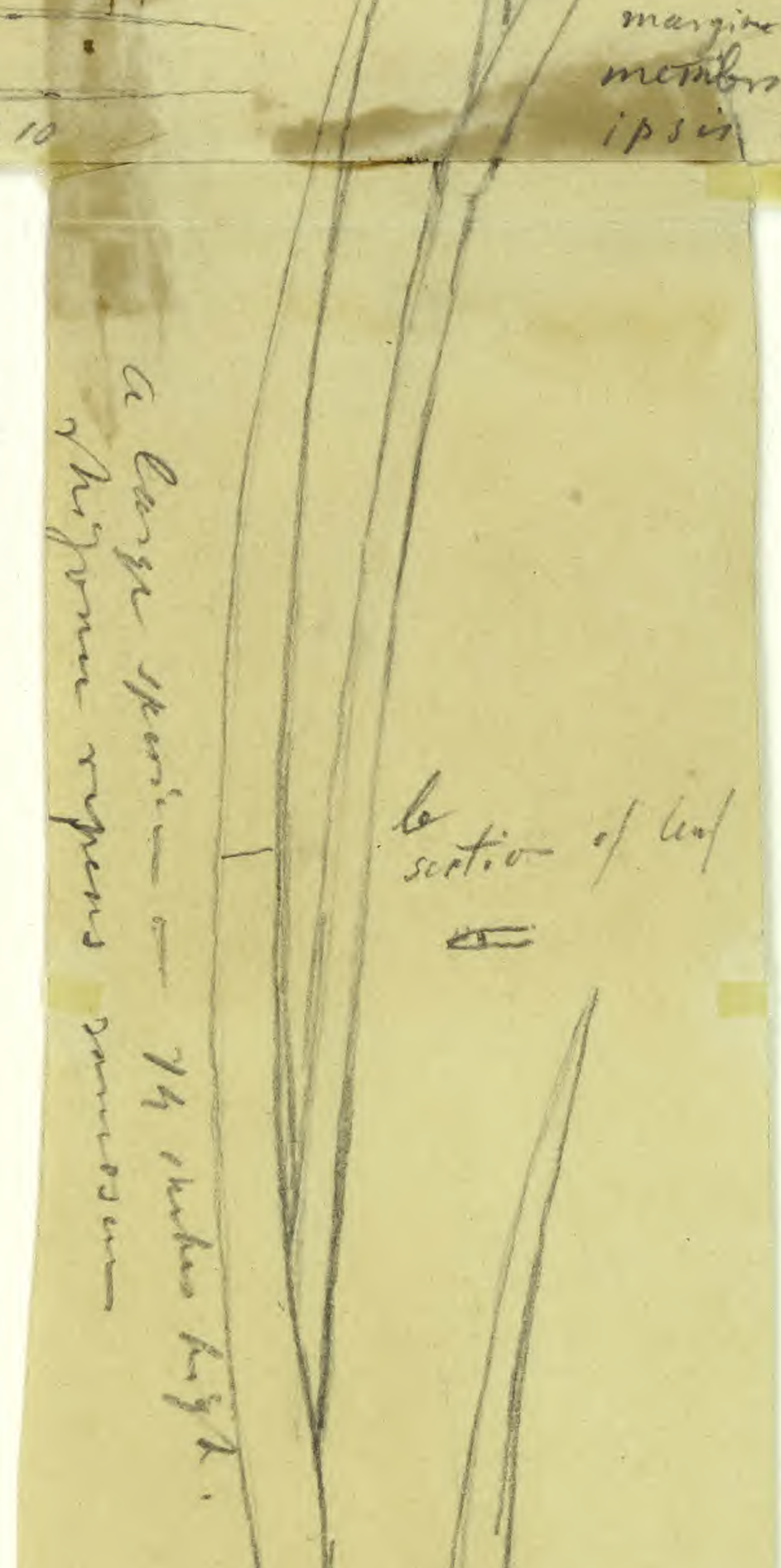




Plantae only a lower part of stalks

Caule foliis quinis irideorum equitantibus compressis; margine stipulari albido membranaceo - stipulis ipsis nullis

a large specimen of Rhizome reduced



b section of leaf

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" Juncus ensifolius " Oct 18 1865

J. x. fuscoides " Saskatchawan Rocky Mountains "

J. montanus Drummond

planifolius. & H. Gray

capit 12~15 fl

leaf with stipule

x 10

sepals acute

exterior longer acuminate

capsule ovate mucronate

acuminate

others have exterior sepals nearly equal to exter

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APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

9479

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MISSOURI BOTANICAL GARDEN

"J. conspicuus ?" "

Feb 23 1868

Hakodadi, Matsmai

Hb. Petersb. No 21

Leaves very flat, ± equitant
heads one or two, dense
fl. pedicelled,

rad. ramifs
nbs numerous,
(area apparently smooth?)

Sepala erecta
interiora paulo brevora

stam 3 or
sometimes 4

Missouri Botanical Garden
George Engelmann Papers

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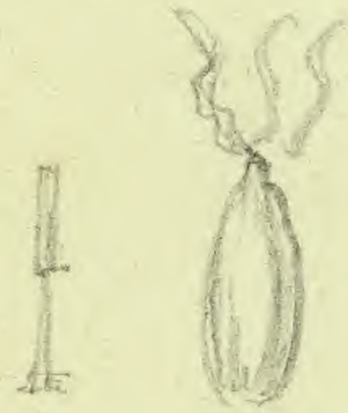
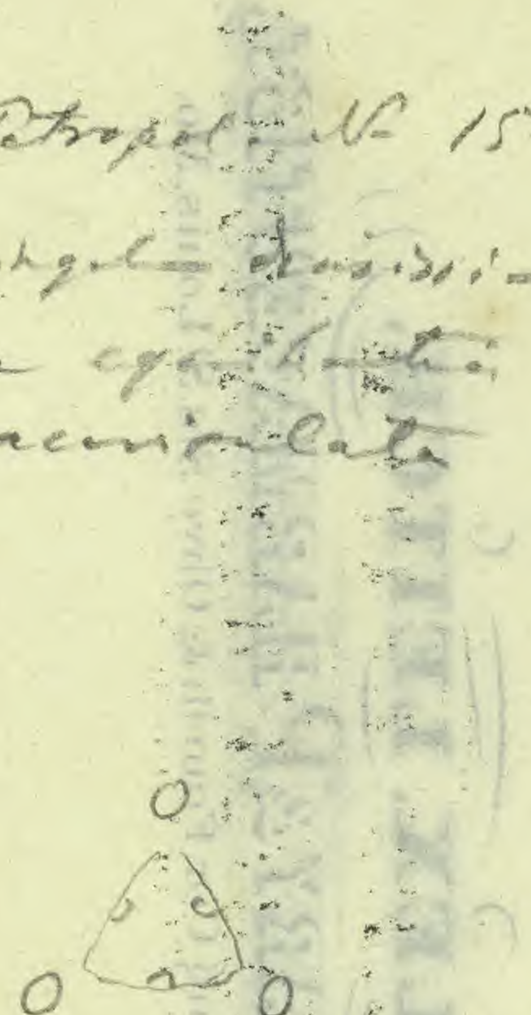
" S. cor. folia Wickh " Febr 23 1864

Neuenahr Buchscholtz

Hb. Hort. Petropol. N 15

capitulum subglobosum; foliis plana cyathiformibus; virgis non acuminatis





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sans date

Articuleti Basifolii

Regione . Superi

rectum compressum foliis caulem amplexis

a latere equitantibus

foliis compressa imperfecta septata

s. aversa

vaginae auriculatae seu subtus

sensim excrescentes in eodem

Sporae varia / pauciflori s. plerq.

Flores subcapitulis / plus minus pluriflori

seriati pedicellati, ~~obovati~~

~~pedicellati basi attenuati, ipsi nudi~~

Capitula solitaria, parva, seu

saepius in pauciflora plus minus

compositae dispositi

Sepala saepius lata, ~~plerumque~~

~~aequalia~~, ~~saepius Rarobarbata~~

~~in eodem capitulo varia~~

exterior saepius s. aequilata

interior saepius parce barbata

obtusa mutica s. ~~mucronulata~~ mucronulata — in eodem

capitulo varia.

Stamina 6, rarius 3,

ovario sty ~~Stigmata~~ Stigmata.

Capsula immersa oblongo cylindrica,

s. rarius excedens, unilocularis

Semina obtuso-bicarinata, (utrinque

apiculata, s. raro brevissime caudata)

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DEALER IN
PHARMACEUTICAL
Preparations,
FINE CHEMICALS,
And all the
New Remedies.

E. L. MASSOT,

CORNER OF
Fourth and Spruce Streets,
ST. LOUIS.

DISPENSING
AND
MANUFACTURING
PHARMACEUTIST.

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Vaginae sensim excurrentes
nec acuminatae
Juncus canadensis (exempla Kansanorum)
J. oxycarpus Hartweg's spec

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Fl. Ber 1866	vagina	capitula	sepala	stam	anthera	stylus	capsula	semina
I. ensifolius Willd.	~~nulla~~	2–3 fusca multiflora Congesta	acuta subaequalia seu interiora subbreviora	3	filamenta ~~aequalia~~ plerumque ~~aequalia~~ brevior multo	ovaria ovata aequans	ovata acuta mucronata sepala aequans s. excedens	ovata utrinque apiculata
I. brevicaudus n. sp.								
I. ensifolius Gray Mertensianus	conspicua ~~conduplicata~~	1–3 fusca multiflora divisa fusca	interiora breviora obtusa ovata mucronata	3 – 6	filamenta aequans seu saepe brevior	ovaria obtuse aequans	obovata vel late sepala aequans s. eis brevior. obtusa plerumque mucronata	~~ovata~~ lanceolata utrinque breviter caudata
I. phaeocephalus n. sp.	acuminata	8–pler. fusca s. luteo pauciflora	ovato-lanceolata exteriora Cuspidata obtusa interiora subacuta	6				majora ovato-lanceolata, ubique apiculata, grosse reticulata.
I. xiphioides montanus	acuminata	pauci- plurifl ora	acuta ~~acuta~~ interiora breviora	6	Cristae filamenta multo longiora sepala saepe breviora	ovaria acuminata aequans	ovata obtusiuscula mucronata tri loba	
I. xiphioides polycephalus	?	6–8 majuscula multiflora	aequilonga, interiora obtusiuscula mucronata	6	filamenta aequans s. eo brevior	ovaria acuta fere aequans.	ovata acuta mucronata, sepala aequans	ovato-lanceolata utrinque paulo producta in apiculum
I. xiphioides verus s. superdecompos.	acuminata	paniculae superdecomposita capitula saepe pauciflora (3–20 fl)	aequilonga acuta acuta s. interiora breviora obtusiora	6	filamenta aequans s. eo multo longior	ovaria acuminata aequans	ovata acuta mucronata sepala aequans s. excedens.	ovata major utrinque apiculata
I. chlorocephalus n. sp.		1–3 pallide multiflora	aequilati ovato-lanceolata obtusa externa mucronata	6	crista longa lineari, filamenta longiora, sepala fere aequilonga	ovaria oblonga duplo longior		
I. axyseptalis meri	rare acuminata n. sp. sessilis exacuta	paniculae superdecomp. cap. 5–10 flora	lanceolata, subulato acuminata interiora longiora	6	lineari filamenta multo longior	ovaria acuminata aequans	prismatica longe acuminata	ovato-lanceolata utrinque apiculata
I. accuratus n. sp.	sessilis exacuta	paniculae superdecomp. cap. ... flora	lanceolata acuta	6	lineari filamenta aequans	ovaria acuminata brevissima	prismatica obtusa mucronata	ovato-lanceolata utrinque fere in apiculata

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Deutsche Apotheke

—von—

John G. Schütze,

Südwestliche Ecke von Broadway und Morgan Straße,

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